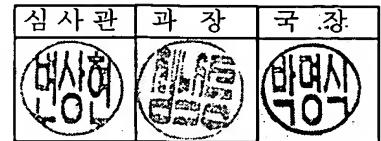


## ATENT COOPERATION TREATY

PCT



## INTERNATIONAL PRELIMINARY EXAMINATION REPORT

(PCT Article 36 and Rule 70)

Applicant's or agent's file reference YL03011PCT	<b>FOR FURTHER ACTION</b>		See Notification of Transmittal of International Preliminary Examination Report (Form PCT/IPEA/416)
International application No. <b>PCT/KR2003/001744</b>	International filing date (day/month/year) <b>28 AUGUST 2003 (28.08.2003)</b>	Priority date (day/month/year) 27 SEPTEMBER 2002 (27.09.2002)	
International Patent Classification (IPC) or national classification and IPC <b>IPC7 C05F 11/00</b>			
Applicant <b>CHUN, Sukyoung</b>			

1. This international preliminary examination report has been prepared by this International Preliminary Examining Authority and is transmitted to the applicant according to Article 36.

2. This REPORT consists of a total of 5 sheets, including this cover sheet.

This report is also accompanied by ANNEXES, i.e., sheets of the description, claims and/or drawings which have been amended and are the basis for this report and/or sheets containing rectifications made before this Authority (see Rule 70.16 and Section 607 of the Administrative Instructions under the PCT).

These annexes consist of a total of \_\_\_\_\_ sheets.

3. This report contains indications relating to the following items:

- I  Basis of the report
- II  Priority
- III  Non-establishment of opinion with regard to novelty, inventive step and industrial applicability
- IV  Lack of unity of invention
- V  Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement
- VI  Certain documents cited
- VII  Certain defects in the international application
- VIII  Certain observations on the international application

Date of submission of the demand <b>04 DECEMBER 2003 (04.12.2003)</b>	Date of completion of this report <b>13 JANUARY 2005 (13.01.2005)</b>
Name and mailing address of the IPEA/KR Korean Intellectual Property Office 920 Dunsan-dong, Seo-gu, Daejeon 302-701, Republic of Korea	Authorized officer <b>BYUN, Sang Hyun</b>
Facsimile No. 82-42-472-7140	Telephone No. 82-42-481-5566



## INTERNATIONAL PRELIMINARY EXAMINATION REPORT

International application No.

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## I. Basis of the report

## 1. With regard to the elements of the international application:\*

 the international application as originally filed the description:pages \_\_\_\_\_, as originally filed  
pages \_\_\_\_\_, filed with the demand  
pages \_\_\_\_\_, filed with the letter of \_\_\_\_\_ the claims:pages \_\_\_\_\_, as originally filed  
pages \_\_\_\_\_, as amended (together with any statement) under Article 19  
pages \_\_\_\_\_, filed with the demand  
pages \_\_\_\_\_, filed with the letter of \_\_\_\_\_ the drawings:pages \_\_\_\_\_, as originally filed  
pages \_\_\_\_\_, filed with the demand  
pages \_\_\_\_\_, filed with the letter of \_\_\_\_\_ the sequence listing part of the description:pages \_\_\_\_\_, as originally filed  
pages \_\_\_\_\_, filed with the demand  
pages \_\_\_\_\_, filed with the letter of \_\_\_\_\_

## 2. With regard to the language, all the elements marked above were available or furnished to this Authority in the language in which the international application was filed, unless otherwise indicated under this item.

These elements were available or furnished to this Authority in the following language English which is the language of a translation furnished for the purposes of international search (under Rule 23.1(b)). the language of publication of the international application (under Rule 48.3(b)). the language of the translation furnished for the purposes of international preliminary examination (under Rules 55.2 and/or 55.3).

## 3. With regard to any nucleotide and/or amino acid sequence disclosed in the international application, the international preliminary examination was carried out on the basis of the sequence listing:

 contained in the international application in written form. filed together with the international application in computer readable form. furnished subsequently to this Authority in written form. furnished subsequently to this Authority in computer readable form The statement that the subsequently furnished written sequence listing does not go beyond the disclosure in the international application as filed has been furnished. The statement that the information recorded in computer readable form is identical to the written sequence listing has been furnished.4.  The amendments have resulted in the cancellation of: the description, pages \_\_\_\_\_ the claims, Nos. \_\_\_\_\_ the drawings, sheets \_\_\_\_\_

## 5.

 This report has been established as if (some of) the amendments had not been made, since they have been considered to go beyond the disclosure as filed, as indicated in the Supplemental Box (Rule 70.2(c)).\*\*

\* Replacement sheets which have been furnished to the receiving Office in response to an invitation under Article 14 are referred to in this opinion as "originally filed." and are not annexed to this report since they do not contain amendments (Rules 70.16 and 70.17).

\*\* Any replacement sheet containing such amendments must be referred to under item I and annexed to this report.

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**II. Priority**

1.  This opinion has been established as if no priority had been claimed due to the failure to furnish within the prescribed time limit the requested:
  - copy of the earlier application whose priority has been claimed (Rule 66.7(a)).
  - translation of the earlier application whose priority has been claimed (Rule 66.7(b)).
2.  This opinion has been established as if no priority had been claimed due to the fact that the priority claim has been found invalid (Rule 64.1).

Thus for the purpose of this opinion, the international filing date indicated above is considered to be the relevant date.

3. Additional observations, if necessary:

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**III. Non-establishment of opinion with regard to novelty, inventive step and industrial applicability**

1. The questions whether the claimed invention appears to be novel, to involve an inventive step (to be non obvious), or to be industrially applicable have not been examined in respect of:

 the entire international application, claims Nos. \_\_\_\_\_

because:

 the said international application, or the said claims Nos. \_\_\_\_\_ relate to the following subject matter which does not require an international preliminary examination (*specify*): the description, claims or drawings (*indicate particular elements below*) or said claims Nos. \_\_\_\_\_ are so unclear that no meaningful opinion could be formed (*specify*): the claims, or said claims Nos. \_\_\_\_\_ are so inadequately supported by the description that no meaningful opinion could be formed.  
 no international search report has been established for said claims Nos. \_\_\_\_\_

2. A meaningful international preliminary examination cannot be carried out due to the failure of the nucleotide and/or amino acid sequence listing to comply with the standard provided for in Annex C of the Administrative Instructions:

 the written form has not been furnished or does not comply with the standard. the computer readable form has not been furnished or does not comply with the standard.

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**IV. Lack of unity of invention****1. In response to the invitation to restrict or pay additional fees the applicant has:**

- restricted the claims.
- paid additional fees.
- paid additional fees under protest.
- neither restricted nor paid additional fees.

**2.  This Authority found that the requirement of unity of invention is not complied with and chose, according to Rule 68.1, not to invite the applicant to restrict or pay additional fees:****3. This Authority considers that the requirement of unity of invention in accordance with Rules 13.1, 13.2 and 13.3 is**

- complied with.
- not complied with for the following reasons:

**4. Consequently, the following parts of the international application were the subject of international preliminary examination in establishing this report:**

- all parts.
- the parts relating to claims Nos.

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**V. Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement****1. Statement**

Novelty (N)	Claims	1-10	YES
	Claims		NO
Inventive step (IS)	Claims	10	YES
	Claims	1-9	NO
Industrial applicability (IA)	Claims	1-10	YES
	Claims		NO

**2. Citations and explanations (Rule 70.7)**

Reference is made to the following document:

D1: JP 5-877 A

The present invention relates to a method for manufacturing a wood chip capsule, a method for controlling dissolving-out velocity of fertilizer, pesticide or plant growth regulator from the wood chip capsule, a wood chip capsule manufactured by the method, a method of using the wood chip capsule and an apparatus for manufacturing the wood chip capsule.

D1 discloses a method for producing ligneous manure and the constitution of the method as follows:

The predetermined amount of wood chips is loaded in a vessel. The mixed liquid of microorganisms (such as bacillus and clostridium) and nutritive substance for growing the microorganisms is introduced to the vessel. Then air is drawn from the insides of the wood chips by a pressure reducing machine and the mixed liquid is immersed in the wood chips by a pressurizing machine. After the wood chips are fermented, fertilizer component (nitrogen, phosphate and potassium), organic fertilizer or inorganic fertilizer is immersed in the fermented wood chips. Then the wood chips are dried to obtain ligneous manure.

(See supplemental box.)

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**VI. Certain documents cited****1. Certain published documents (Rule 70.10)**

<u>Application No. Patent No.</u>	<u>Publication date (day/month/year)</u>	<u>Filing date (day/month/year)</u>	<u>Priority date (valid claim) (day/month/year)</u>
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**2. Non-written disclosures (Rule 70.9)**Kind of non-written disclosureDate of non-written disclosure  
(day/month/year)Date of written disclosure  
referring to non-written disclosure  
(day/month/year)

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**VII. Certain defects in the international application**

The following defects in the form or contents of the international application have been noted:

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**VIII. Certain observations on the international application**

The following observations on the clarity of the claims, description, and drawings or on the question whether the claims are fully supported by the description, are made:

Claims 1-9 are not fully supported by the description (PCT Art. 6) as follows:

All examples only describes the permeation of fertilizer and no example suggests the permeation of pesticide and plant growth regulator into a wood chip by pressurization or immersion in the description.

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**Supplemental Box**

(To be used when the space in any of the preceding boxes is not sufficient)

Continuation of:

Box V

The subject matter of claims 1-3 in the present invention relates to a method for manufacturing a wood chip capsule, which comprises the steps of:

(a) manufacturing a wood chip, (b) drying naturally to 10 ~ 40% water content, (c) permeating more than one selected from the group consisting of fertilizer, pesticide and plant growth regulator into the wood chip by pressurizing or immersing.

**1. Novelty**

The subject matter of claims 1-3 differs in permeating fertilizer, pesticide or plant growth regulator in comparison with D1, which teaches a method for producing ligneous manure by immersing microorganisms into a wood chip. Therefore, The subject matter of claims 1-3 is considered to be novel under PCT Article 33(2).

Also, the subject matter of claims 4-7 (a method for controlling dissolving-out velocity of fertilizer, pesticide or plant growth regulator from the wood chip capsule), claim 8 (a wood chip capsule manufactured by the method), claim 9 (a using method for the wood chip capsule) and claim 10 (an apparatus for manufacturing the wood chip capsule) is considered to be novel under PCT Article 33(2).

**2. Inventive step**

But it is obvious for one skilled in the art to apply teaching of D1 (a method related to immersing fertilizer component (nitrogen, phosphate and potassium), organic fertilizer or inorganic fertilizer into a wood chip), thus, to arrive at the subject matter of claims 1-3 (a method related to permeating fertilizer, pesticide or plant growth regulator) without exercising inventive skill.

Therefore, The subject matter of claims 1-3 does not involve an inventive step under PCT Article 33(3). Similarly, the subject matter of claims 4-9 does not involve an inventive step under PCT Article 33(3).

**3. Industrial applicability**

Industrial applicability of the subject matter of claims 1-10 is beyond a doubt.

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**Supplemental Box**

(To be used when the space in any of the preceding boxes is not sufficient)

Continuation of:

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**Supplemental Box**

(To be used when the space in any of the preceding boxes is not sufficient)

Continuation of:

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International application No.

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**Supplemental Box**  
(To be used when the space in any of the preceding boxes is not sufficient)

Continuation of:

**INTERNATIONAL PRELIMINARY EXAMINATION REPORT**

International application No.

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**Supplemental Box**

(To be used when the space in any of the preceding boxes is not sufficient)

Continuation of: